REMARKS/ARGUMENTS

Prosecution Status

Claims 1-78 are pending in the application. Of claims 1-78, claims 11-20, 31-40, 51-60, and 69-78 are withdrawn from consideration, in response to the Applicant's Election dated January 5, 2006. In the Office Action dated March 31, 2006, claims 1-10, 21-30, 41-50, and 61-68 are rejected.

Rejections under 35 USC § 102

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Tsunehara, Brodie, and Martorana

Claims 1-10, 21-30, 41-50, and 61-68 are rejected under 35 USC § 102(e) as anticipated by each of U.S. Patent Application Publication No. US2002/0132626 to Tsunehara et al. ("Tsunehara"), and U.S. Patent No. 6,691,066 to Brodie ("Brodie"), or U.S. Patent No. 6,486,831 to Martorana et al. ("Martorana").

The Applicant amends independent claims 1, 21, 41, and 61 to overcome the rejection based on each of Tsunehara, Brodie, and Martorana. The Applicant further amends dependent claims 2, 5, 6, 22, 25, 26, 42, 45, 46, 62, 64, and 65 to provide for proper antecedent basis.

With regard to claims 1-10, 21-30, 41-50, and 61-68, each of Tsunehara, Brodie, and Martorana does not teach or suggest the claimed limitation: "estimating a probability that the first measurement is a false alarm from the position determination signals to determine a first reliability indicator," as claimed in independent claims 1, 21, 41, and 61. Therefore, each of Tsunehara, Brodie, and Martorana does not anticipate each claim element of the respective independent claims.

Tsunehara teaches:

"[0024] The GPS reliability calculation unit 204 calculates the reliability of the GPS-based position calculation result 205 based on the information about the reliability input from the position calculation unit for GPS 201, and the unit 204 outputs the reliability 205 to the GPS/cellular positioning results combining unit 400. The GPS reliability calculation unit 204 calculates the reliability in a manner in which, for example, the number of GPS satellites used when the position calculation unit for GPS 201 calculated the handset position is used as the reliability 205. Alternatively, the quality of the signals received from the GPS satellites used when the position calculation unit for GPS 201 calculated the handset position might be used. In this case, the signal of the worst quality received from a GPS satellite is considered influential as a determinative factor of the reliability of the position calculation result." (emphasis added)

"[0028] The cellular reliability calculation unit 304 calculates the reliability of the cellular-based position calculation result 305 based on the information about the reliability input from the position calculation unit for cellular 301, and the unit 304 outputs the reliability 305 to the GPS/cellular positioning results combining unit 400. The cellular reliability calculation unit 304 preferably calculates the reliability in the same manner as the GPS reliability calculation unit 204. For example, the number of cellular base stations used when the position calculation unit for cellular 301 calculated the handset position or the lowest SNR among the SNRs of the signals received from the cellular base stations may be used as the reliability 305." (emphasis added)

Therefore, Tsunehara's teachings of determining the reliability 205 and 305 based on the number of GPS satellites and the number of cellular base stations, respectively, or the quality of the signals received and the lowest SNR among the SNRs, respectively, are not the same as the claimed limitation "estimating a probability that the first measurement is a false alarm from the position determination signals to determine a first reliability indicator."

Brodie teaches:

"The invention improves measurement fault detection by ordering the processing of measurements in order of increasing probability of a measurement fault, where we have some means to assess the relative likelihood of a fault on the measurements to be processed, other than the measurement residual itself. For example, suppose a set of pseudorange

measurements is to be processed in a satellite positioning system receiver to obtain an estimate of the current position, as in FIG. 2. It appears in this Figure, and it is quite true that satellites at a low elevation angle as seen from the receiver are much more likely to have their transmitted signals affected by multipath and blockage for a terrestrial user. Thus we can say, without quantifying the exact probability of failure, that the lower elevation satellite has a high probability of a multipath-induced fault on its pseudorange measurement than a higher elevation satellite." (col. 6, lines 19-34)

Therefore, Brodie's teaching of "without quantifying the exact probability of failure" teaches against the claimed limitation "estimating a probability that the first measurement is a false alarm from the position determination signals to determine a first reliability indicator."

Martorana teaches:

Martorana screens range measurements "so that only acceptable range measurement are supplied to a tracking filter and used to update the position solution." Martorana, col. 4, lines 24-27. There are two screening stages, a coarse screening and a fine screening. Id., col. 4, lines 31-33. "The coarse screening stage includes computing an estimated expected range between the reference radio which sent the measured ranging signal and the local receiving radio based on the positions of the reference and local radios estimated by their respective tracking (Kalman) filters." Id., lines 33-38 (emphasis added). "The fine screening process relies on a comparison of the range measurement to a measurement history, specifically, a fading average of previous range measurements and the variability of these previous range measurements." Id., lines 47-50 (emphasis added), see also, col. 11, lines 28-31. The coarse screening uses previously known positions of the radios and compares measurements to these known distances. The fine screening is using a moving weighted average with time, i.e. the older a measurement is the less weight it is given. If a measurement is too far afield from previous measurements, it may fail to pass the fine screening. Martorana is comparing measured ranges to predicted ranges, i.e. measured distances to predicted distances.

Therefore, Martorana's teachings of "coarse screening stage includes computing an estimated expected range" and "the fine screening is using a moving weighted average with time" are not the same as the claimed limitation "estimating a probability that the first measurement is a false alarm from the position determination signals to determine a first reliability indicator."

Previously presented independent claims 1, 21, 41, and 61 claimed "the first reliability indicator representing a level of measurement false alarm probability for the first measurement." The examiner argued that the claimed limitation of "the first reliability indicator representing a level of measurement false alarm probability for the first measurement" was taught by each of Tsunehara (e.g., true or false reading), Brodie (e.g., pseudorange signals are ordered on the basis of the fault probability therewith), and Martorana (e.g., use and discard of inaccurate range measurements). Previously presented claims 1, 21, 41, and 61 claim a representative relationship between the reliability indicator and the level of measurement false alarm probability. The examiner appears to be interpreting the representative relationship in the previously presented claims 1, 21, 41, and 61, as being anticipated by each of the three present references.

Currently amended independent claims 1, 21, 41, and 61 claim "estimating a probability that the first measurement is a false alarm from the position determination signals to determine a first reliability indicator." The currently amended claims 1, 21, 41, and 61 claim a determined relationship between the estimated probability and the reliability indicator. The applicant submits that the determined relationship in the currently amended claims 1, 21, 41, and 61 is not anticipated by each of the three present references.

Support for the present amendment may be found, for example, in the present specification at paragraphs 0033, 0036, and 0049. No new matter has been added by this amendment.

CONCLUSION

Applicants respectfully request that the Examiner reconsider the outstanding rejections and that these rejections be withdrawn. It is believed that a complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of the application, the Examiner is invited to telephone the undersigned at the number provided.

Docket No. 030175 **Serial No. 10/690,175**

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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